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ABSTRACT

This study measured responsiveness to the immediate environment on the basis of the social (vs. neutral) content of a person's free associations, in an effort to relate this responsiveness to field-dependence. The results lend support to the view that field-dependence is associated with social responsiveness in word association. Two aspects of social responsiveness in word associations were studied: (1) preference for external cues; and (2) preference for social (as opposed to neutral) content regardless of external or internal cues. Correlations between external cues and social content were quite low in all conditions. The field-dependent subjects revealed their social responsiveness in several ways: (1) by giving more externally-related words; (2) by giving more social content words; and (3) by giving more incidental words when the conditions permitted. (TA)

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FIELD DEPENDENCE AND SOCIAL RESPONSIVENESS AS DETERMINANTS OF SPONTANEOUSLY PRODUCED WORDS

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Field-dependence has been shown to relate to people's propensities for using external cues, as opposed to internal or self cues (Witkin et al., 1954, 1962). For example, Witkin and Lewis (1967) found that field-dependent subjects (Ss) incorporated into their manifest dream content more aspects of the experimental setting, including the experimenter (E), than did field-independent Ss. Exploring the use of internal and external cues, Mann (1954) found, consistent with Rorschach theory, that Ss who emphasized color in the M:C ratio were more externally oriented in free associations: They gave more associations that were referable to the stimuli present in the experimental room, including E. The present study similarly measures responsiveness to the immediate environment on the basis of the content of a person's free associations, in an effort to relate this responsiveness to field-dependence.

Mann's study and much of Witkin's work focus on the use of external vs. internal stimuli. In the present study another aspect of social responsiveness in free associations is also investigated: the preference for words with social as

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opposed to neutral content. A "social" word, for example, people, can be triggered by either external or internal stimuli, and the same is true for a "neutral" word like winter.

In some recent work (Fitzgibbons, Goldberger, and Eagle, 1965: Eagle et al., 1966, and Eagle et al., 1969), incidental memory for social words was found to be a function of field-dependence, and it was argued that the more field-dependent a subject is, the more likely he will be to have a social rather than a task orientation. In the present study the focus is on social responsiveness as reflected in the free production of words, the hypothesis being that field-dependent Ss (as contrasted to field-independent Ss) will reveal their greater social orientation in a variety of ways: 1. by giving more room-related words, i.e. external: 2. by giving more social words (irrespective of their source): and 3. by giving more incidental words (words introduced by an interpolated task, to be described later).

METHOD

Subjects.

Ss were 18 female paid undergraduate and graduate volunteers at New York University, ranging in age from 18 to 28. They were seen individually, and were told that they were participating in an experiment on thinking.

Procedure.

Ss were given three measures of field-dependence: the

Portable Rod and Frame test as described by Oltman (1968); the first 12 figures of Witkin's Embedded-Figures test; and figure drawings, using the standard Machover Procedure. These were the predictors that entered into the multiple regression design.

Following the drawings, Ss were told: "You're going to hear a timer setting a pace for you. What I want you to do is to say a word every time you hear a beat from the timer. Say any words you like - just as they come to mind. Remember: one word per beat. Don't begin until I tell you (timer turned on for 2 beats); that's the pace - begin." The timer gave metronome-like beats every 2½ seconds and E wrote down each word. S and E sat at a table, and in S's visual field were a piece of apparatus (from another experiment) against the wall, pictures on the walls, file cabinets, a telephone, and the usual contents of an office or experimental room. The only specially placed object was a bulletin board on which were pinned pictures of people, ordinary departmental notices, and a few drawings by adults and children. On inquiry after the experiment, no Ss had thought that the bulletin board was a plant.

Following the first production of 30 words (condition I), 10-15 min. were devoted to an interpolated procedure: S worked on an extended Digit Symbol task while a tape recorder in the distance played words to be tested later for incidental recall and recognition. This procedure was the

same as that previously employed by Fitzgibbons et al.

Condition II, identical to the first, was then introduced as follows: "I'm going to start the timer again at the same pace, and the idea is the same as before. Say one word per beat - whatever word comes to mind (2 beats). Begin." S again produced 30 words.

Condition III, in which Ss were blindfolded, followed. Ss were told: "We're going to do the same thing except this time blindfolded (blindfold given and S put it on). The instructions are the same but try not to repeat any of the words you said before. Any questions? (2 beats) Begin." There were invariably no questions. An inquiry was made into the source of the words produced in all 3 conditions. Subjects were told: "Sometimes people can recall where thoughts come from - sometimes they can't. I'm going to repeat the words you said on the three trials, and I'd like you to try to think back to what made you think of each word. If you can't remember, we'll skip it, but try to get as many as possible." The three lists were read back to S and his reasons were recorded, as nearly as possible.

Ratings.

The figure drawings were rated on a five-point scale on which I represented the extreme of field-dependence. The mean score of three judges was taken as S's score. In 16 of the 18 cases, there were no discrepancies larger than one point. The interjudge reliabilities for the 3 judges

ranged from .71 to .80.

Two other judges were given the lists of words and verbatim inquiries and asked to categorize each word as a Room or a non-Room word (R vs. non-R), and as a Social or a Neutral word (S vs. N). The judges were given a complete list of the objects in the experimental room and were also shown the room. From the total of about 1600 words that they judged on the R vs. non-R dimension, they disagreed on fewer than 5. E explained the distinction between Social and Neutral words to the judges in terms of a word's relevance to social interaction. E gave the judges several examples of S and N words: Following Fitzgibbons et al. (1965), neighbor, marry, and friend were given as examples of S words, and deck, hence, and glass were given as examples of N words. Agreement of the two judges was 75% on S and N words.

RESULTS

The scores on the field-dependence measures were within the normative range for female Ss of this age group (according to a personal communication from Philip Oltman). The mean error per trial in judging the vertical on the RFT was 7.95°, with an s.d. of 4.88; the mean solution time per card on the EFT was 52.61 sec., with an s.d. of 35.51; and the mean figure drawing score was 3.22, with an s.d. of 1.06. The intercorrelations among the three measures

were statistically significant and in accord with previous findings for female Ss: RFT and EFT .51; RFT and Fig. D. .55; EFT with Fig. D. .50.

Analyses of variance for repeated measures showed that at the .05 level there were significant differences among the three conditions for R words but not for S words. A Neuman-Keuls test revealed that the condition effect for R words was due to the blindfold condition, i.e., fewer R words were given when S could not see the usual visual field, a fairly obvious finding. (See Table 1.)

Table 2 presents correlations between field-dependence and R words and between field-dependence and S words. When S's eyes were open, a significant relationship was found between field-dependence and S words in condition I (Multiple R of .65) and very nearly significant relationships were found with R words (the .05 criterion figure for df = 14 is .426). In condition II, the finding for S words was only a trend. In the blindfold condition, a significant Multiple r (.43) was found for S words, suggesting that visual contact with the field is not a factor in the propensity to give S as opposed to N words.

Two aspects of social responsiveness in word associations were under study: preference for external cues (R words), and preference for social as opposed to neutral content regardless of external or internal cues, (S words). It was thought that while they are distinct, these might

be somewhat related qualities of a more general function of social responsiveness. This expectation was not supported: correlations between R and S words were quite low in all conditions.

The hypothesis that field-dependent Ss would incorporate more incidental words into their "spontaneous" word productions was assessed by counting the number of such "intrusions" in the second list and correlating these scores with the field-dependence measure. This yielded a significant multiple r of .46 in the predicted direction (see Table 3). The second line of Table 3 shows that field-dependent Ss tended to incorporate more S words from among the incidental words.

Discussion

The general pattern of results lends support to the view that field-dependence is associated with social responsiveness in word association. Specifically, this was found to be true for S words and for incidental words, and nearly so for R words. The findings therefore support the hypotheses with which we began, namely that field-dependent Ss would reveal their social responsiveness in several ways: by giving more R related words, more S words, and more incidental words when the conditions permitted.

One may speculate about the relevance of the present

study to free association in psychotherapy. Many therapists believe that some patients take better to classical free associating than other patients who get lost when required to be so self-reliant and self-stimulating. This study may provide a rationale for this difference in facility on the free association task as presented in psychoanalysis. That is, there may be a stylistic tendency to look outward to the immediate environment, which most prominently includes the therapist. A person with this propensity, as compared to one who more naturally looks to internal cues, may profit more from a more interactionally oriented therapy.

If this propensity can be shown to be relatively stable across conditions and drive states, it may add support to a stylistic interpretation of social responsiveness in free association. Lack of facility in <u>introspective</u> free associating may be due to this stylistic variable in addition to variables concerned with severity of disturbance or dynamically motivated resistance. The first question for further research would seem to be to show that this social orientation is indeed a relatively stable one.

TABLE 1

Means and Standard Deviation of Room and Social Words in the 3 Conditions (N: 18)

ROOM WORDS

	Eyes Open	Eyes Open	Eyes Closed
$\bar{X}$	6.56	5.08	1.94
S.D.	7.81	8.00	3.32

SOCIAL WORDS

	Eyes Open	Eyes Open	Eyes Closed
$\bar{X}$	10.17	12.64	10.03
S.D.	4.84	4.72	6.43

TABLE 2

Correlations Between Field-Dependence Measures and Room (R) and Social (S) Words (N:18)

	Condition	RFT	EFT	F.D.	Mult. R
Room Words					
I.	Eyes Open (Interpolated task)	.14	.24	.33	.35
II.	Eyes Open	.05	.30	.33	.42*
III.	Eyes Closed	.00	-.22	.10	.33
Social Words					
I.	Eyes Open (Interpolated task)	.64**	.30	.44*	.65**
II.	Eyes Open	.06	.17	.12	.30
III.	Eyes Closed	.38	.02	.19	.43*

* $p < .05$ df = 16 for all zero-order correlations

** $p < .005$ df = 14 for multiple correlations

TABLE 3

Correlations Between Measures of Field Dependence, Number of Incidental Words on Trial 2, and the Relationship of Social to Neutral Words Among Incidental Words (IW)

	RFT	EFT	F.Dr.	Multiple r
IW	-.02	.33	.10	.46
S to N	.41	-.17	-.08	.60

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